SB19/SB1900 Series

Discreet Surveillance Enclosures

Installation/Operation Manual

C467M-D (5/95)

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

REVISION HISTORY

Manual #	Date	Comments
C467M	2/90	Original Version.
C467M	3/90	Rev. A. "Scope" section expanded to include warnings. Updated model and options section. Figure 5 Added.
C467M	11/90	Rev. B. Addendum incorporated @ Figure 19 Exploded Assy Diagram. Wiring diagram changes added. Previous Figure 3 deleted; wiring table made up.
C467M	5/92	Rev. C. Incorporated addendum.
C467M-D	4/95	Update a new format. Incorporate ECO's 94-064. Add exploded assembly drawing for pan/tilt (Figure 8) and corresponding parts list.
	8/96	Added clear dome to Section 7.0, Exploded Assembly Mechanical Parts List.

INSTALLATION AND OPERATION MANUAL
DISCREET SURVEILLANCE ENCLOSURES:
    MODEL SB19/SB1900 SERIES
    MODEL SB19-1/SB1901 SERIES
    MODEL DD1900 SERIES

CAUTION

This device is designed to operate at 24VAC power.

Input voltage must not exceed 28 volts or drop below 22 volts or else damage to the motors will occur.

Should you need assistance with this or any Pelco product, please call **1-800-298-9100** or **1-559-292-1981**.

1.0 WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by Qualified Service Personnel and conform to all Local codes.

2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.

3. Only use replacement parts recommended by Pelco.

4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.

5. The installation method and materials should be capable of supporting four (4) times the weight of the enclosure, pan/tilt, camera and lens combination.

The product may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

SA 1965

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

SA 1966

CAUTION:
TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:
RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

2.0 SCOPE

The information contained within this manual covers the SB19/SB1900 Series of Discreet Surveillance Enclosures.

3.0 DESCRIPTION

The SB19 is a low profile, hemisphere, discreet surveillance dome for CCD type cameras designed for ease of installation, relocation, and servicing in hard ceiling applications or in a standard 2' x 2' or 2' x 4' suspended ceiling grid.

The black opaque lower dome effectively conceals the camera while providing an inconspicuous viewing window. The dome mounts directly to the pan/tilt (or fixed camera mount), thus keeping the viewing window and camera aligned.

To simplify installation even further, Pelco offers system packages with factory installed standard components from its regular product line. Options include a 24 VAC pan/tilt with factory pre-wired feed-through for all control functions (i.e., pan/tilt, motorized zoom lens, camera power (24 VAC) and video), continuous 360° pan rotation, and a position feedback package for presets.

The dome and camera assembly rotate at a speed of 24 degrees/second for complete 360 degree surveillance coverage.

The back box is constructed of aluminum to meet most fire code requirements for installation in open plenum ceilings.

4.0 INSTALLATION

Save the shipping carton and plastic packaging in case the unit must be returned for credit or repair.

4.1 CONDUCTOR AND CABLE REQUIREMENTS (All Models Except SB19)

A minimum of 12 conductors plus coax is required, which includes common requirements for motorized zoom lens and camera AC power. (An additional coax is required for camera sync.)

NOTE: The following are the cable requirements. A relay box (RB24) is available to extend the operating distance. Consult the factory for details.

Non-PP Models

	12 Conductors	13 Conductors*
20 Awg	190 ft (57.91 m)	380 ft (115.82 m)
18 Awg	300 ft (91.44 m)	600 ft (182.88 m)
16 Awg	480 ft (146.3 m)	960 ft (292.61 m)

Models with PP

	18 Conductors	19 Conductors*
20 Awg	190 ft (57.91 m)	380 ft (115.82 m)
18 Awg	300 ft (91.44 m)	600 ft (182.88 m)
16 Awg	480 ft (146.3 m)	960 ft (292.61 m)

*Using 2 conductor common.

Calculations are based on a 10% cable loss with both motors running.

4.2 WIRING INSTRUCTIONS

The SB1900 and SB1900-SL include a pan/tilt which is pre-wired for all control functions (pan/tilt, motorized zoom lens, camera power (24 VAC), and video). All connections are made to the input terminal block in the J-box on top of the back box, eliminating the need for wiring harnesses made in the field. Wire the control cable according to the wiring diagram in Figure 1.
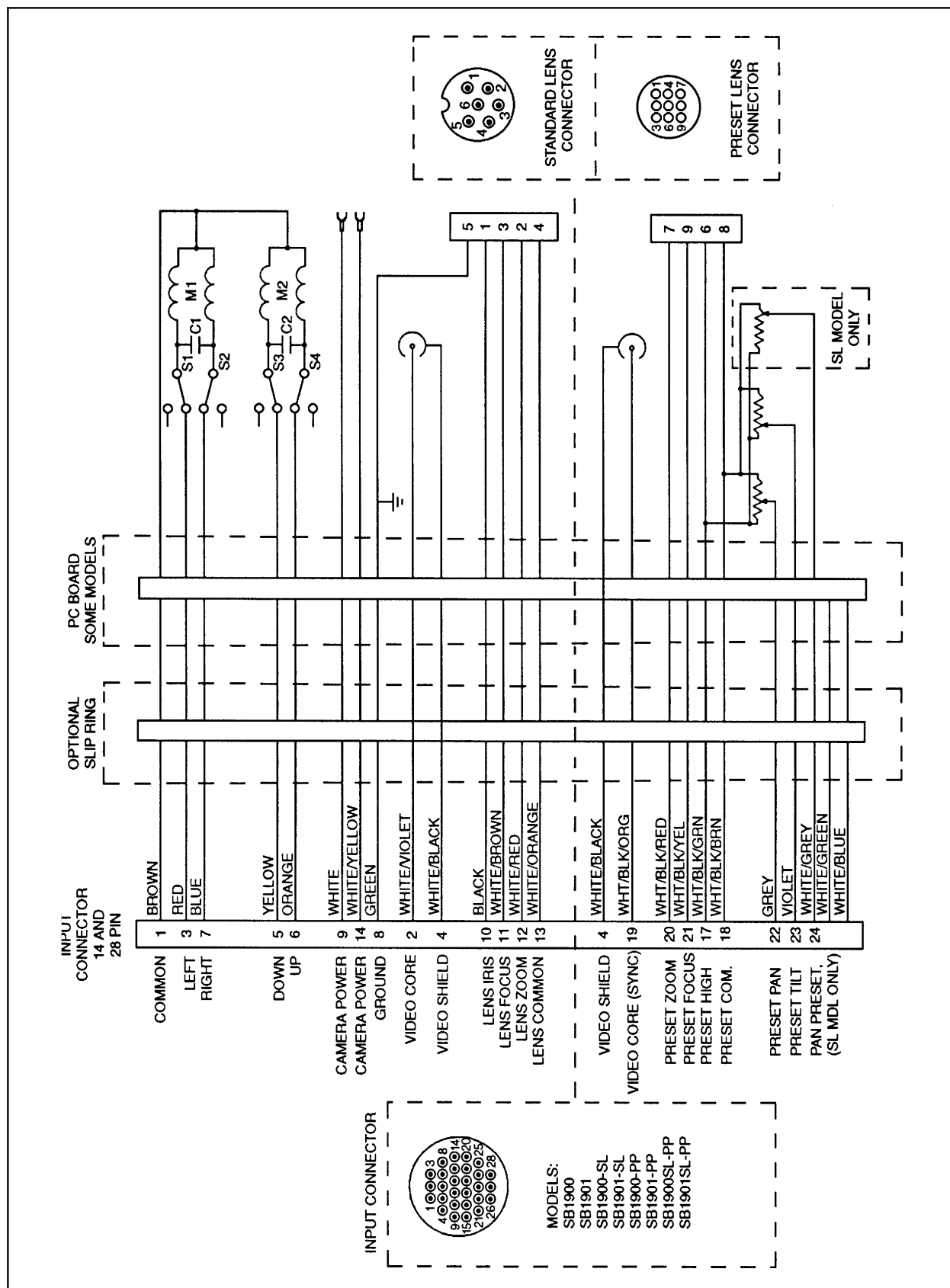
Figure 1. SB1900 Series Wiring Diagram

4.3 MOUNTING INSTRUCTIONS

Determine the type of mounting desired. The enclosure can be mounted in a hard ceiling, completely replace a standard 2' x 2' suspended ceiling tile using the APSB19 optional faceplate, or be inserted through a cut-out in a standard 2' x 2' suspended ceiling tile.

Handle the lower dome with care so as not to scratch or get fingerprints on the viewing window.

4.3.1 Suspended Ceiling Mounting

4.3.1.1 Suspended Ceiling - Preferred Method

1. Determine the location for mounting the enclosure and remove the appropriate ceiling tile.

> **IMPORTANT:** When installing the enclosure in a 2' x 4' ceiling grid, cut the ceiling tile in half and install an additional "T" rail for support.

2. Remove the factory assembled 12.5" round faceplate from the back box by disengaging the serrated studs.

3. Remove the factory assembled 14.5" square mounting plate by removing the four (4) 1/4-20 bolts.

4. Place the 14.5" square mounting plate on the removed ceiling tile, centering all four edges of the plate to the tile. Draw an outline of the octagon opening in the sub-plate onto the tile.

5. Using a sharp knife or keysaw, cut out the octagon outlined on the tile.

6. Replace the ceiling tile and place the mounting plate on top of it, centering the plate on the tile. Attach the back box mount rails with 1/4-20 nuts (provided) to two opposite sides of the mounting plate. Use these mount rails to secure the back box in place so that it can't move when inserting or removing the dome drive unit, and so that all of the weight of the unit is not on the ceiling tile, per local code. (Refer to Figure 2.)
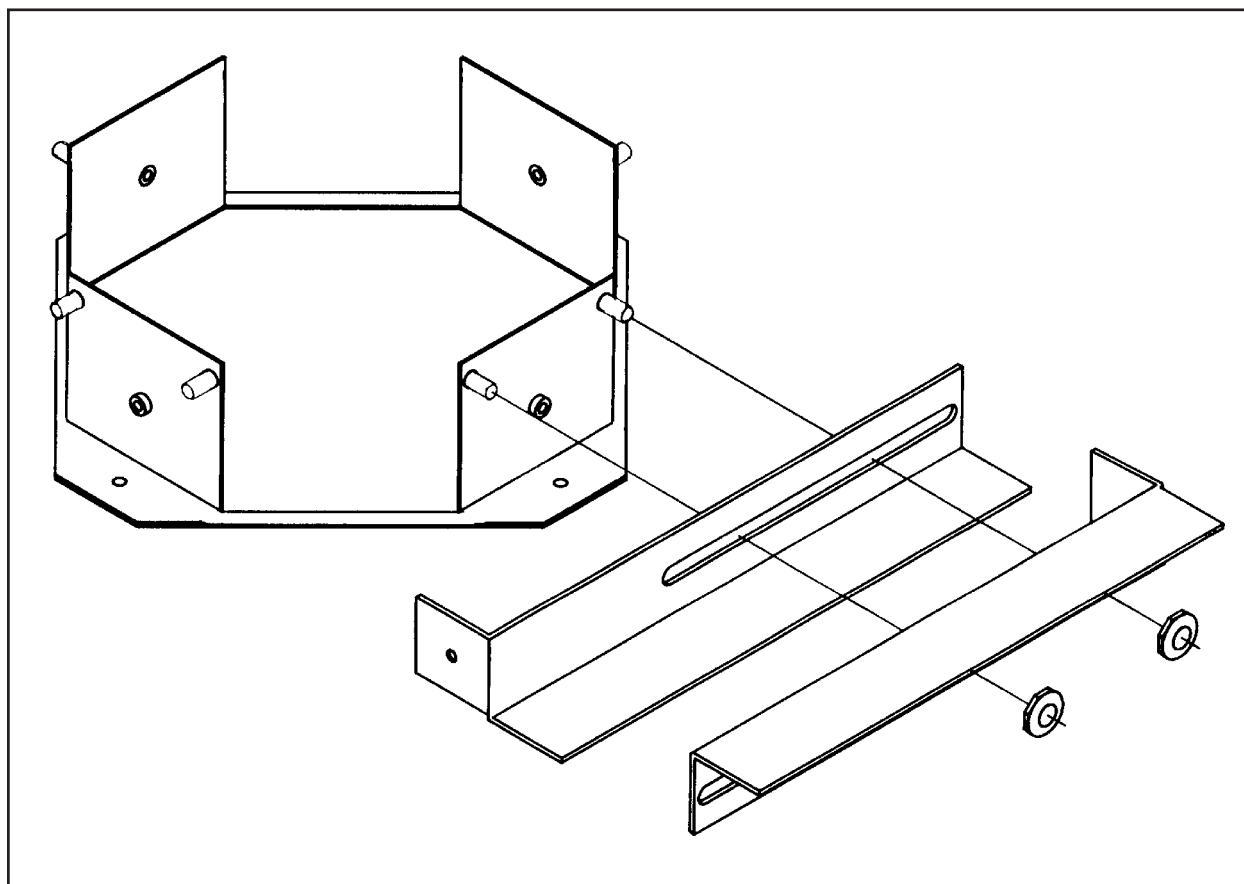

Figure 2. Back Box Mounting Rail Installation

7. Slide the back box through the ceiling tile and mounting plate and replace the four (4) 1/4-20 bolts and tighten to secure the back box to the mounting plate.

8. Check the alignment of the back box to the ceiling tile by attaching the 12.5" round faceplate trim to the bottom of the back box, aligning the two studs with two of the holes in the flanges of the back box and engaging the studs. The studs should engage, while leaving a very minimal gap between the ceiling and faceplate trim. Loosen the 1/4-20 hardware in the sides of the back box and make adjustments as required. Insure that the face of the back box is level with the ceiling.

9. Attach the lens and camera head to the tilt table (hardware not supplied), if not factory pre-assembled, using the camera/lens position template supplied as a guide (see Figure 3). Locate the lens and camera so that when the notched area in the template is fitted under the tilt table, the lens and camera do not project further out from the tilt table than allowed by the template. Also, the lens must not project higher than the long end of the template.

NOTE: If the camera and lens do not fit within the boundaries of the template, they will not fit inside the dome and need to be replaced with smaller units.
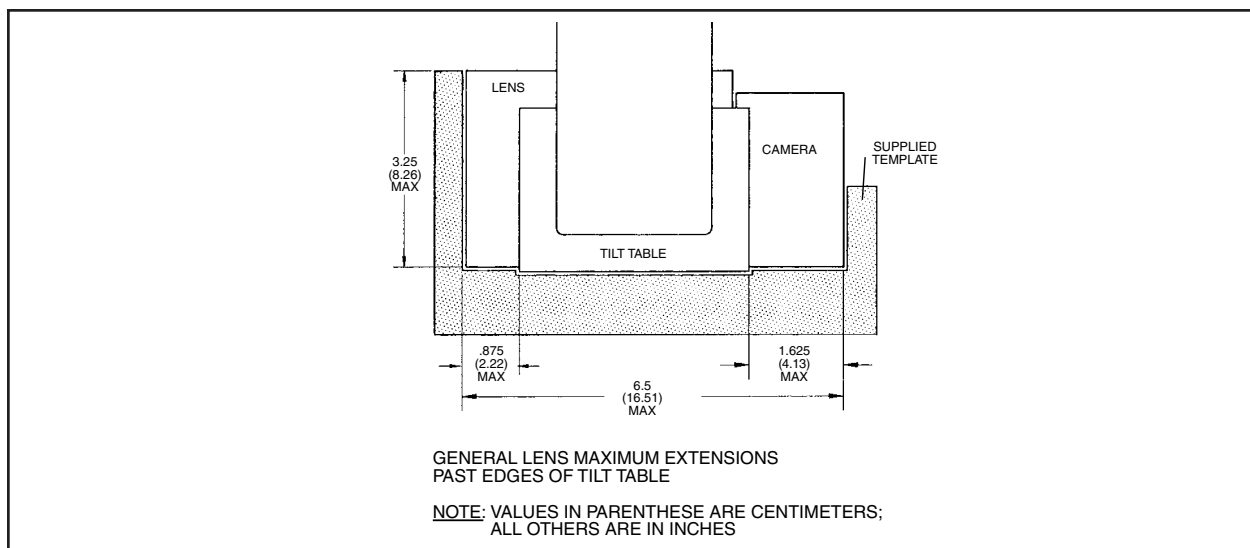
10. Mount the camera power supply onto the bracket provided, if not factory pre-assembled. (Screws to mount the camera power supply and lens are not provided with the pan/tilt.)

NOTE: For PC1804B and PC900U cameras, remove the mounting bracket with the two 1/4-20 holes in it from the camera's power supply, align the camera power supply so that the two (2) threaded holes in the power supply align over two of the round holes in the camera power supply bracket on the pan/tilt, and attach it with the screws provided with the camera.

11. Hook up camera power, video, and lens with the connectors supplied, if not factory pre-assembled. Coil the excess camera cable and tie it down with tie-wraps to the pan/tilt body.

NOTE: To insert or remove the drive unit from the back box, the drive unit may need to be rotated 90° so that the wiring cover and/or camera power supply does not interfere with the side of the back box. If difficulty inserting or removing the drive unit is experienced, slowly and gently rotate the drive unit 90°.

12. Engage the connector of the coil cord into the connector of the pan/tilt and attach the safety clamp; then insert the pan/tilt into the back box, feeding the coil cord back through the opening in the top of the back box. Position the pan/tilt in the back box so that the horizontal studs in the pan/tilt mount bracket align with the slots in the back box mount bracket. Lift the pan/tilt until it reaches its stop, then slide it to one side while letting it drop about 1/4 inch (see Figure 4).

LENS

CAMERA

SUPPLIED TEMPLATE

3.25 (8.26) MAX

TILT TABLE

.875 (2.22) MAX

1.625 (4.13) MAX

6.5 (16.51) MAX

GENERAL LENS MAXIMUM EXTENSIONS
PAST EDGES OF TILT TABLE

NOTE: VALUES IN PARENTHESE ARE CENTIMETERS; ALL OTHERS ARE IN INCHES

Figure 3. Camera/Lens Mounting Dimensions

13. Attach the dome to the pan/tilt by aligning the two ball studs protruding through the flange of the dome with the two holes in the dome attachment brackets and engaging the studs.

14. Attach the safety chain on the side of the back box to the short 4-40 threaded screw in the 12.5" round faceplate trim with the provided hardware.

15. Attach the faceplate trim to the back box by aligning the two serrated studs with two of the holes in the edges of the back box and engaging the studs.

16. Operate the pan/tilt to verify that there are no obstructions or dragging cables within the back box or dome.

UPPER MOUNTING PLATE
INSIDE BACK COVER

SAFETY SPRING CLIP
ATTACHED TO COIL CORD
(CAN BE POSITIONED
180° FROM SHOWN)

LOWER MOUNTING PLATE
ATTACHED TO PAN AND TILT
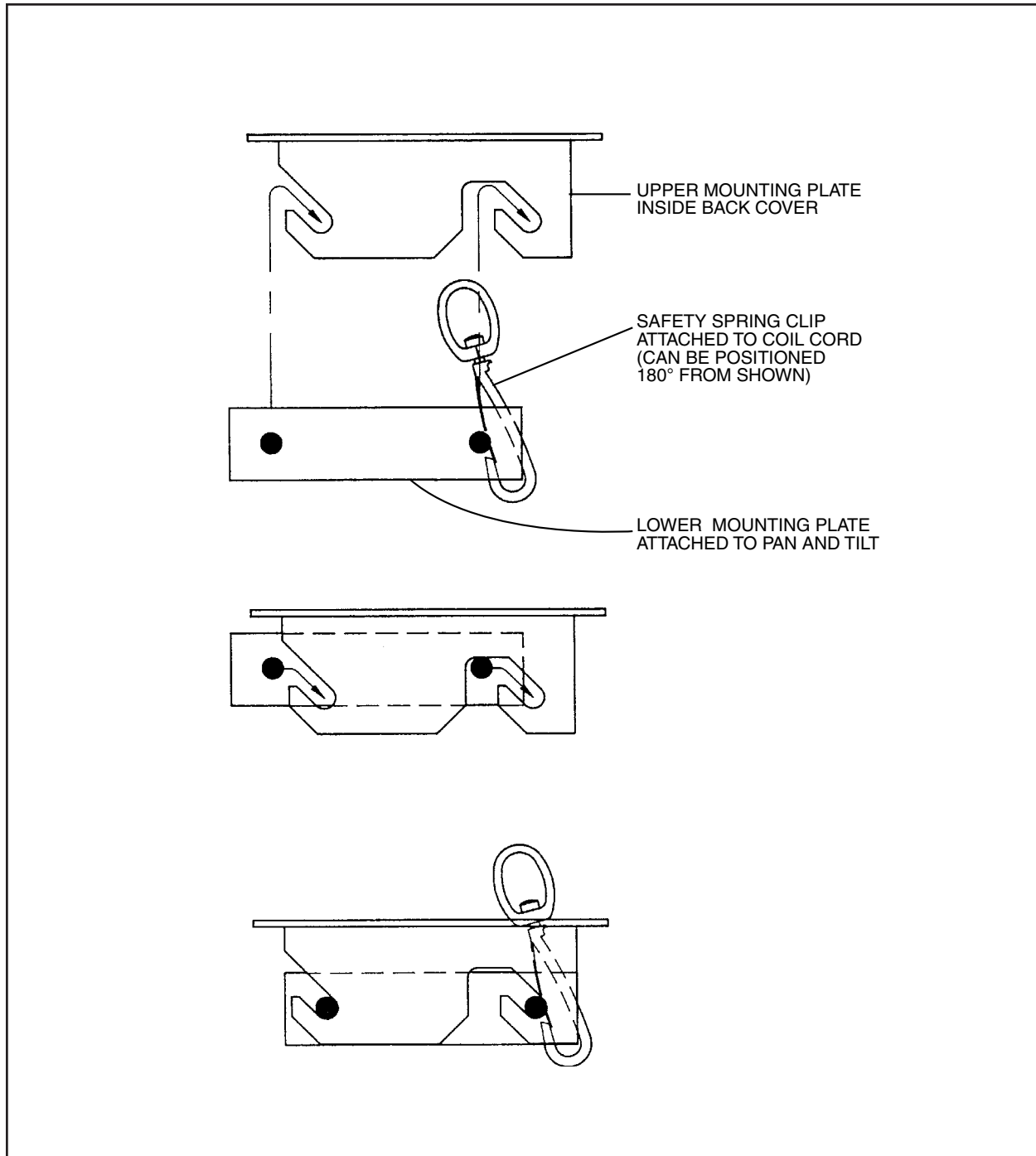
Figure 4. Pan/Tilt Mounting Detail

4.3.1.2 Suspended Ceiling Tile Replacement Mounting

To mount the enclosure into a suspended ceiling grid where the tile is replaced, perform the following steps.

1. Determine the location for mounting the enclosure and remove the appropriate ceiling tile.

> **IMPORTANT:** When installing the enclosure in a 2' x 4' ceiling grid, cut the ceiling tile in half and install an additional "T" rail for support.

2. Angle the 23.75" back box mounting plate (part number APSB19, which must be ordered separately) through the grid opening and set the plate into the grid. Attach the back box mount rails with 1/4-20 nuts (provided) to two opposite sides of the mounting plate (see Figure 2). Use these mount rails to secure the back box in place so that it can't move when inserting or removing the dome drive unit, and so that all of the weight of the unit is not on the ceiling tile, per local code.

3. Remove the factory assembled 12.5" round faceplate from the back box by disengaging the serrated studs.

4. Remove the factory assembled 14.5" square mounting plate by removing the four (4) 1-4/20 bolts.

5. Slide the back box through the mounting plate and replace the four (4) 1/4-20 bolts and tighten to secure the back box to the mounting plate.

6. Check the alignment of the back box to the mounting plate by attaching the 12.5" round faceplate trim to the bottom of the back box, aligning the two studs with two of the holes in the flanges of the back box and engaging the studs. The studs should engage, while leaving a very minimal gap between the ceiling and faceplate trim. Loosen the 1/4-20 hardware in the sides of the back box and make adjustments as required. Insure that the face of the back box is level with the ceiling.

7. Attach the lens and camera head to the tilt table (hardware not supplied), if not factory pre-assembled, using the camera/lens position template supplied as a guide (see Figure 3). Locate the lens and camera so that when the notched area in the template is fitted under the tilt table, the lens and camera do not project further out from the tilt table than allowed by the template. Also, the lens must not project higher than the long end of the template.

> **NOTE:** If the camera and lens do not fit within the boundaries of the template, they will not fit inside the dome and need to be replaced with smaller units.

8. Mount the camera power supply onto the bracket provided, if not factory pre-assembled. (Screws to mount the camera power supply and lens are not provided with the pan/tilt.)

> **NOTE:** For PC1804B and PC900U cameras, remove the mounting bracket with the two 1/4-20 threaded holes in it from the camera's power supply, align the camera power supply so that the two (2) threaded holes in the power supply align over two of the round holes in the camera power supply bracket on the pan/tilt, and attach it with the screws provided with the camera.

9. Hook up camera power, video, and lens with the connectors supplied, if not factory pre-assembled. Coil the excess camera cable and tie it down with tie-wraps to the pan/tilt body.

> **NOTE:** To insert or remove the drive unit from the back box, the drive unit may need to be rotated 90° so that the wiring cover and/or camera power supply does not interfere with the side of the back box. If difficulty inserting or removing the drive unit is experienced, slowly and gently rotate the drive unit 90°.

10. Engage the connector of the coil cord into the connector of the pan/tilt and attach the safety clamp; then insert the pan/tilt into the back box, feeding the coil cord back through the opening in the top of the back box. Position the pan/tilt in the back box so that the horizontal studs in the pan/tilt mount bracket align with slots in the back box mount bracket. Lift the pan/tilt until it reaches its stop, then slide it to one side while letting it drop about 1/4 inch (see Figure 4).

11. Attach the dome to the pan/tilt by aligning the two ball studs protruding through the flange of the dome with the two holes in the dome attachment brackets and engaging the studs.

12. Attach the safety chain on the side of the back box to the short 4-40 threaded screw in the 12.5" round faceplate trim with the provided hardware.

13. Attach the faceplate trim to the back box by aligning the two serrated studs with two of the holes in the edges of the back box and engaging the studs.

14. Operate the pan/tilt to verify that there are no obstructions or dragging cables within the back box or dome.

4.3.2 Hard Ceiling Mounting

To mount the enclosure into a hard ceiling, perform the following steps.

1. Determine the location and direction of the enclosure. Ideally, the enclosure cutout should be parallel and adjacent, or perpendicular, to any ceiling structure. Cut an opening (refer to Figure 8 for dimensions).

2. Remove the factory assembled 12.5" round faceplate from the back box by disengaging the serrated studs.

3. Remove the factory assembled 14.5" square mounting plate by removing the four (4) 1/4-20 bolts and place it over the opening. Attach the back box mount rails to the mounting plate with 1/4-20 nuts (provided) to two opposite sides of the mounting plate (see Figure 2). Use these mount rails to secure the back box in place so that it can't move when inserting or removing the dome drive unit, and so that all of the weight of the unit is not on the ceiling tile, per local code.

4. Slide the back box through the mounting plate and replace the four (4) 1/4-20 bolts and tighten to secure the back box to the mounting plate.

5. Check the alignment of the back box to the ceiling by attaching the 12.5" round faceplate trim to the bottom of the back box, aligning the two studs with two of the holes in the flanges of the back box and engaging the studs. The studs should engage, while leaving a very minimal gap between the ceiling and faceplate trim. Loosen the 1/4-20 hardware in the sides of the back box and make adjustments are required. Insure that the face of the back box is level with the ceiling.

6. Attach the lens and camera head to the tilt table (hardware not supplied), if not factory pre-assembled, using the camera/lens position template supplied as a guide (see Figure 3). Locate the lens and camera so that when the notched area in the template is fitted under the tilt table, the lens and camera do not project further out from the tilt table than allowed by the template. Also, the lens must not project higher than the long end of the template.

> **NOTE:** If the camera and lens do not fit within the boundaries of the template, they will not fit inside the dome and need to be replaced with smaller units.

7. Mount the camera power supply onto the bracket provided, if not factory pre-assembled. (Screws to mount the camera power supply and lens are not provided with the pan/tilt.)

8. Hook up camera power, video, and lens with the connectors supplied, if not factory pre-assembled. Coil the excess camera cable and tie it down with tie-wraps to the pan/tilt body.

> **NOTE:** To insert or remove the drive unit from the back box, the drive unit may need to be rotated 90° so that the wiring cover and/or camera power supply does not interfere with the side of the back box. If difficulty inserting or removing the drive unit is experienced, slowly and gently rotate the drive unit 90°.

9. Engage the connector of the coil cord into the connector of the pan/tilt and attach the safety clamp; then insert the pan/tilt into the back box, feeding the coil cord back through the opening in the top of the back box. Position the pan/tilt in the back box so that the horizontal studs in the pan/tilt mount bracket align with slots in the back box mounting bracket. Lift the pan/tilt until it reaches its stop, then slide it to one side while letting it drop about 1/4 inch (see Figure 4).

10. Attach the dome to the pan/tilt by aligning the two ball studs protruding through the flange of the dome with the two holes in the dome attachment brackets and engaging the studs.

11. Attach the safety chain on the side of the back box to the short 4-40 threaded screw in the 12.5" round faceplate trim with the provided hardware.

12. Attach the faceplate trim to the back box by aligning the two serrated studs with two of the holes in the edges of the back box and engaging the studs.

13. Operate the pan/tilt to verify that there are no obstructions or dragging cables within the back box or dome.

4.4 CONNECTOR ASSEMBLY

To install and test the SB1900 Series enclosures you may need to fabricate the interconnecting cable as outlined below. (Pretested wire harnesses, WH1900-06 and WH1900-25, are optional cables for the SB1900 Series dome enclosures).

1. Strip back the cable jacket approximately 2 inches and separate the individual conductors.

2. Attach spade lugs to each wire and mate BNC to coax and camera sync.

3. Pop out a knock-out in one of the ends of the J-box (on top of back box). Thread cable into J-box through knock-out and attach each wire to the terminal block, as marked beside terminal block, and engage BNC connectors or video and camer sync.

4.5 ADJUSTMENTS

To adjust the pan/tilt limits, perform the following steps. Refer to Figure 5 for limit stop locations.

> **CAUTION:** Do not attempt to adjust limit stops when the pan/tilt is in operation. Damage to the equipment can result. Also, do not operate equipment without limit stops. Note that SL models are supplied <u>without</u> pan limit stops, therefore, no adjustments are necessary.
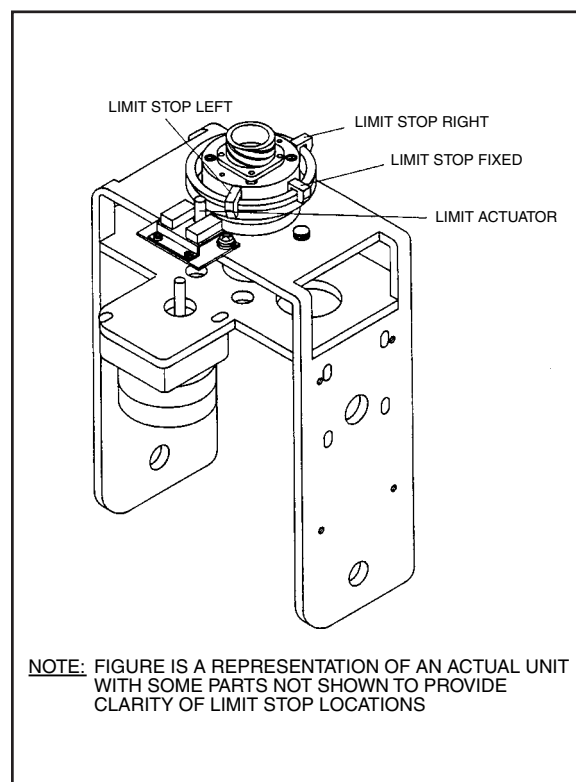
Factory pan limits are set to 0-355° and tilt limits are to 0-90° (horizontal to vertical). Under normal conditions, the tilt limits should not have to be reset.

To adjust limit stops, perform the following steps:

1. Pan to the right using the joystick control until the desired pan limit is reached. Remove the drive unit from the back box and adjust the pan limit stop until the actuator clicks. Lock the limit into position. Replace the drive unit.

2. Pan to the desired left position, remove the drive unit from the back box and adjust the pan limit stop until the actuator clicks, and lock into position. Replace the drive unit.

3. Pan to the right and left to verify the exact positioning.

4. The tilt limit is factory set at 0 to -90° (horizontal to vertical). The tilt can be adjusted to any point between horizontal and vertical; however, under normal conditions the tilt limits should not require adjustment.

5. To alter the factory set tilt limit*, bend the actuator stops on the microswitches (see Figure 6). Move the tilt table to the desired position and adjust the actuators until the switch clicks; lock into position.

6. Tilt up and down to verify exact positioning.

* It should be emphasized that only very minor adjustments should be made by bending the actuator attached to the microswitch; and then, only for the reason of bringing it within factory specifications.

NOTE: FIGURE IS A REPRESENTATION OF AN ACTUAL UNIT WITH SOME PARTS NOT SHOWN TO PROVIDE CLARITY OF LIMIT STOP LOCATIONS

Figure 5. Limit Stop Locations

5.0 CARE AND MAINTENANCE

Regularly scheduled maintenance will prolong the operational life and appearance of the equipment.

> **IMPORTANT:** The lower dome of the enclosure is an optical surface. When cleaning the inner surface of the dome and viewing window, treat as carefully as you would a fine camera lens. Do not use water, liquid or spray cleaners of any kind on coated inner surface of dome.

If dust or other debris accumulates on the inside of the lower dome, remove with clean air pressure only. Compressed air cans are available from commercial photographic equipment and supply dealers.

Clean the outer surface of the dome and the inner surface of the viewing window with a non-abrasive cleaning cloth and anti-static cleaner that is safe for use on acrylic plastic. Do not use kerosene or similar substances that can scratch the surface.
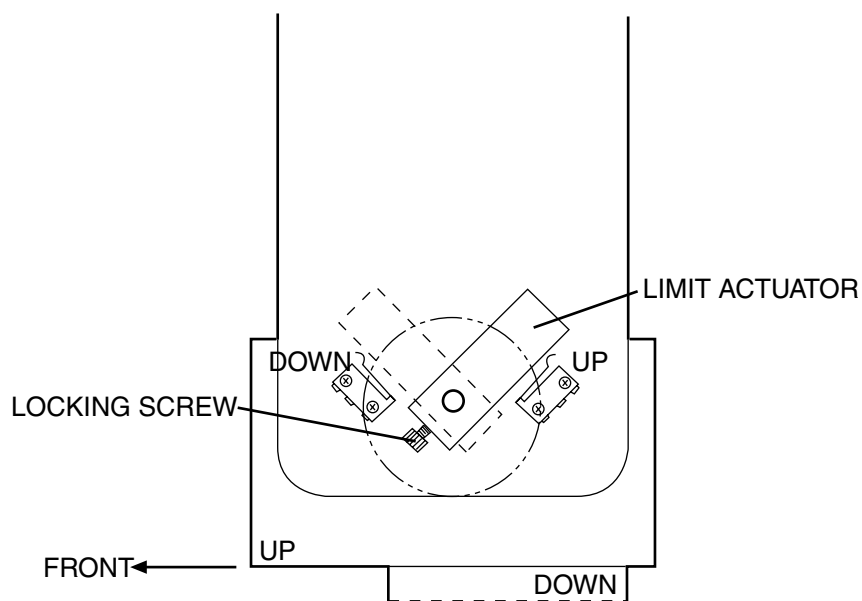
Figure 6. Tilt Limit Stop Modification

6.0 EXPLODED ASSEMBLY DIAGRAM

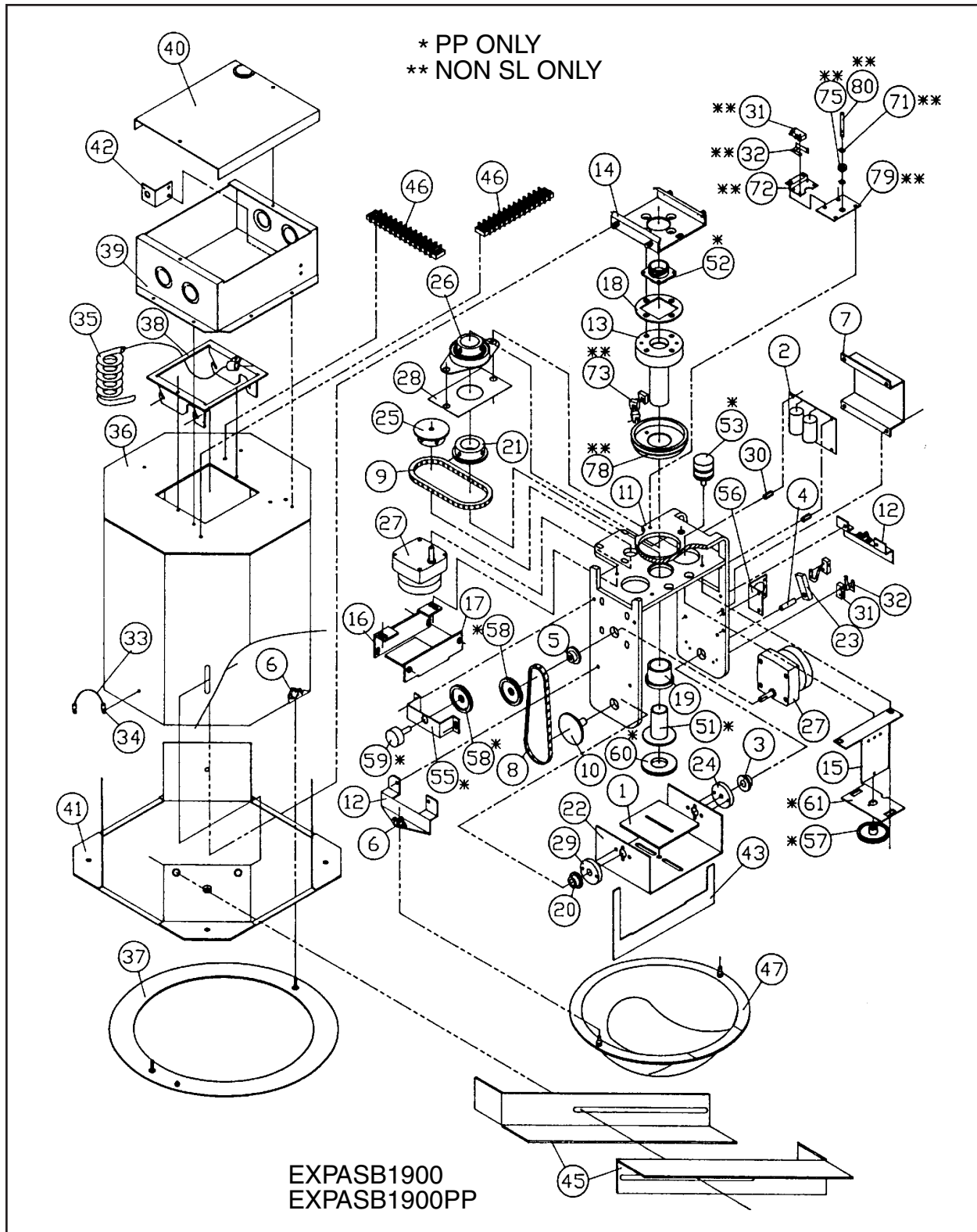Refer to Figure 7 for an exploded assembly diagram of the SB19 enclosure.

Figure 7. SB19 Exploded Assembly Diagram

7.0 EXPLODED ASSEMBLY MECHANICAL PARTS LIST

Item	Qty	Description	Pelco Part Number
1	1	UL, Pad, camera, black .062" thick	EH200010004
2	1	PCB assembly, pan/tilt	PCB3000100ASSY
3	1	Bushing, 3/8" tilt shaft	PT180010001
4	1	Shaft, tilt table	PT18004002COMP
5	1	Sprocket .25" bore with pin and SS	PT18004003COMP
6	2	Ball stud receiver	PT180410001
7		Not used	
8	1	Tilt Chain assembly	PT18041006ASSY
9	1	Pan Chain assembly	PT18041007ASSY
10	1	Tilt shaft, motor side	PT18041011WA
11	1	Frame body, weld assembly	PT18041012WA
12	2	Dome attachment bracket	PT18044002COMP
13	1	Spindle, pan	PT18044055COMP
14	1	Mount, lower pan and tilt	PT18044006COMP
15	1	Bracket, PC1804-B power supply	PT18044009COMP
16	1	Pan motor heat sink mount	PT1804410COMP
17	1	Pan motor heat sink	PT18044011COMP
18	1	Connector spacer, spindle mount	PT18044014COMP
19	1	Bushing	PT250010004
20	1	Bushing, 1/4", tilt shaft	PT250010005
21	1	Sprocket, pan spindle	PT25004104COMP
22	1	Tilt table	PT25004106COMP
23	1	Tilt limit actuator	PT25004108COMP
24	1	Collar, tilt table switch shaft	PT25004121COMP
25	1	Spricket, 1/4" with SS and pilot	PT25004125COMP
26	1	Bearing, flange	PT350010000
27	2	UL, motor, 4 rpm, 24VAC	PT350010010
28	1	Plate, bearing	PT35001060COMP
29	1	Collar, tilt table motor side	PT89104001COMP
30	4	NP spacer, 1/4" OD x .125, #6 clear	SPA8500
31	2	Switch	SWI1SM1
32	2	Switch actuator with insulator	SWIJS138B
33	6	NP cable, S/S x inch	E70810001
34	2	Connector ring, 14-wire #4 stud	E70810002
35	1	Coil cord	PT180410002
36	1	Black box assembly, 10.9" octagon	SB10841010ASSY
37	1	Trim ring assembly	SB18044100COMP
38	1	Mount, upper pan/tilt	SB18044105COMP
39	2	J-box end	SB18044105COMP
40	1	J-box cover	SB18044006COMP
41	1	Boack box mount plate	SSB18044007COMP
42	2	BNC panel mount bracket	SB18044009COMP
43	1	8" dome camera/lens position template	SB184220COMP
44		Not used	
45	4	Back box mount rail	SB194002COMP
46	2	Terminal block, 10-position PC mount	TRB-2MV-10
47	1	Black opaque dome with smoked viewing window and mounting studs	SB194200COMP
	1	Black opaque dome with clear viewing window and mounting studs	SB194300COMP

7.0 EXPLODED ASSEMBLY MECHANICAL PARTS LIST (continued)

Item	Qty	Description	Pelco Part Number
48		Not used	
49		Not used	
50		Not used	
51	1	Slip ring, 24 circuit for presets	250010000
52		Not used	
53		Not used	
54		Not used	
55	1	Bracket, tilt pot	PT18044012COMP
56	1	Bracket, LPP lens connector	PT18044013COMP
57	1	Gear, 1.875 plastic	PT250010002
58	2	Gear, 1.5 plastic	PT250010006
59	2	Pot, precision 10K	POTP010.0K
60	1	Gear, spindle feedback, non-SL	PT25004114COMP
61	1	Pan feedback pot	PT25004116COMP
62 thru 70		Not used	
71	2	Ring snap	15510000
72	1	Bracket, pan limit	2704051COMP
73	3	Limit stop, pan univ	5804006COMP
74		Not used	
75	1	Grommet, neoprene	GRO2172N
76		Not used	
77		Not used	
78	1	Pan limit stop ring	PT18044018COMP
79	1	Bracket, pan limit mount	PT18044019COMP
80	1	Pan limit actuator pin	PT18044020COMP

8.0 MODELS

DD1900 — Dome drive unit for SB1900. (UL)

DD1900-PP — Dome drive unit for SB1900-PP.

DD1900-SL — Dome drive unit for SB1900-SL. (UL)

DD1900SL-PP — Dome drive unit for SB1900SL-PP.

SB19 — Drop ceiling discreet surveillance enclosure with black opaque lower dome with less than 1 f-stop light attenuation and all aluminum back box which mounts above the ceiling. (Camera mount supplied.) (UL)

SB19-1 — Same as SB19 except supplied with clear viewing slot in the dome for virtually zero light loss. (UL)

SB1900 — This system package includes the SB19 black opaque dome enclosure plus a 24 VAC pan/tilt factory assembled inside the back box. It provides factory pre-wired feedthrough for all control functions (i.e., pan/tilt, motorized zoom lens, camera power (24 VAC) and video). All connections are made at the terminal blocks on top of the back box, eliminating wiring harnesses made in the field. This feature significantly reduces installation time while increasing the reliability and serviceability of the system. (UL)

SB1901 — Same as SB1900 except supplied with clear viewing slot in the dome for virtually zero light loss. (UL)

SB1900-SL — Same as the SB1900, except this package features 360° continuous pan rotation. (UL)

SB1901-SL — Same as SB1900-SL except supplied with clear viewing slot in the dome for virtually zero light loss. (UL)

SB1900-PP — Same as the SB1900, except this package features the factory installed preset (PP) option.

SB1901-PP — Same as SB1900-PP except supplied with clear viewing slot in the dome for virtually zero light loss.

SB1900SL-PP — Same as the SB1900-SL with the addition of the preset (PP) option.

SB1901SL-PP — Same as SB1900SL-PP except supplied with clear viewing slot in the dome for virtually zero light loss.

9.0 RECOMMENDED CONTROLS

The following controls are recommended for use with the SB1900 Series enclosures.

9.1 MODELS SB1900 AND SB1900-SL

Hardwire Short-Distance Controls for 24 VAC Operation

MPT24DT — Desk top joystick control module for 24 VAC pan/tilts.

MPTA24DT — Same as MPT24DT except with auto/random scan operation.

MLZ6DT — Desk top zoom lens control module with auto/manual iris control.

MEH24DT — Desk top enclosure control module for 24 VAC camera on/off.

Coaxitron System 2000

MPT9000CZ — Desk top Coaxitron transmitter/control with pan/tilt joystick, zoom lens, and four accessory function controls.

CX9024RXI — Desk top Coaxitron receiver for 24 VAC pan/tilts, zoom lens, 24 VAC camera power and optional four accessory functions. Indoor use.

A9000 — Auto/random scan plug-in module for all Coaxitron receivers.

CX900TLC — System test and receiver manual control board for Coaxitron receivers (plug-in module).

9.2 MODELS SB1900, SB1900-SL, SB1900-PP AND SB1900SL-PP

CM7500 Series Coaxitron Matrix Switcher/Control System rack mount card cage with CPU and power supply. Capable of up to 64 inputs and up to 4 monitor outputs. (See C584 product specification sheet for details).

CM8500 Series Matrix Switcher/Control System capable of up to 32 inputs and 16 monitor outputs. (See C501 product specification sheet for details).

CM9500 Series Coaxitron Matrix Switcher/Control System rack mount card cage with CPU and power supply. Capable of up to 96 inputs and 16 monitor outputs. (See C500 product specification sheet for details).

CX9024RXI-PP Coaxitron indoor receiver for 24 VAC pan/tilts, zoom lens, 24 VAC camera power and optional four accessory functions, with preset option (PP) for pan/tilt and lenses (use with models SB1900-PP and SB1900SL-PP). (Must be used with CM7500/CM9500 series controls only.)

CX900TLC System test and receiver manual control board for Coaxitron receivers (plug-in module).

MPT9500 Desktop controller (coaxitron compatible) with full PTZ, joy stick, 8 auxiliary functions.

10.0 OPTIONS

RB24 Relay box for 24 VAC pan/tilts and scanners. Extends operating distance (control to relay box) up to a maximum of 14,500 feet utilizing 16 Awg.

APSB19 23.75" square faceplate for suspended ceiling applications.

APSB19-1 Same as APSB19 except black finish.

IOP19B1B B/W NTSC 6X camera and lens pkg.

IOP19B1C B/W NTSC 6X camera and lens pkg. with preset positioning.

IOP19B1G B/W NTSC 10X camera/lens pkg.

IOP19C1B Color NTSC 6X camera and lens pkg.

IOP19C1C Color NTSC 6X camera and lens pkg. with preset positioning.

IOP19C1G Color NTSC 10X camera and lens pkg.

WH1900-06 6 foot wire harness with bare wire on one end (for connection to the terminal blocks in the junction box on top of the back box) and a 37 position connector on the other end (for connection to Coaxitron receiver).

WH1900-25 Same as WH1900-06, except 25 feet long.

11.0 SPECIFICATIONS

MECHANICAL

Construction:
  Pan/tilt   Aluminum
  Back box   Aluminum
  Lower dome   Acrylic hemisphere with a clear, distortion-free viewing window with no light attenuation factor (SB1901 Series) or smoked, distortion-free viewing window with less than 1 f-stop light attenuation (SB1900 Series); rotates with the pan/tilt/camera/lens

Maximum
Camera/Lens
Size: 6.5" L x 4.5" W x 3.25" H, including BNC (16.51 cm x 11.43 cm x 8.25 cm); maximum camera head width is 2.50" (6.35 cm) (see Figure 3)

Max. Camera
Power Supply
Size: 2.5" x 5.0" x 2.5"
              (6.35 cm x 12.7 cm x 6.35 cm)

Pan: 0-355° movement in horizontal plane (Models SB1900, SB1900-PP) 360° continuous rotation (Models SB1900-SL, SB1900SL-PP)

Pan Speed:	24°/sec ± 1°	
Tilt:	-90° movement from horizontal plane	
Tilt Speed:	12°/sec ± .5°	
Maximum Load:	10 lbs (4.6 kg)	
Gearing:	Chain drive	
Bearings:		
Pan	Heavy duty ball bearing and Oilite bronze bushing	
Tilt	Oilite bronze bushing	
Braking:	Friction	

ELECTRICAL

Input Voltage: 24 VAC required for pan/tilt

Power Requirements:
  Pan   .31 amp (7.5 vA)
  Tilt   .31 amp (7.5 vA)

Connectors: Terminal strips inside J-box on the top of the back box (all functions except video: camera power, lens, pan/tilt and presets).

Video Connector: BNC

Camera Power: Spade lugs, 24 VAC

Lens Connector: Hirchmann 6100 type (mate supplied) for non-PP models
AMP CPC type (mate supplied) for PP models

Motors: Synchronous type, continuous duty, instantaneous reversing

Limit Switches:
  Pan   5 amp, 10 million cycle rating (external adjustment) on non-SL
  Tilt   5 amp, 10 million cycle rating (factory set)

Conductor Requirements:
  Non-PP models   Pan/tilt (5 plus ground), Lens (4), Camera AC (2), Video (coax), Camera Sync (coax)

  PP models   Pan/tilt (9 plus ground), Lens (6), Camera AC (2), Video (coax), Camera Sync (coax)

GENERAL

Environment: Indoor

Temperature Range: 14°F to 122°F (-10°C to +50°C)

Dimensions: See Figure 8

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.
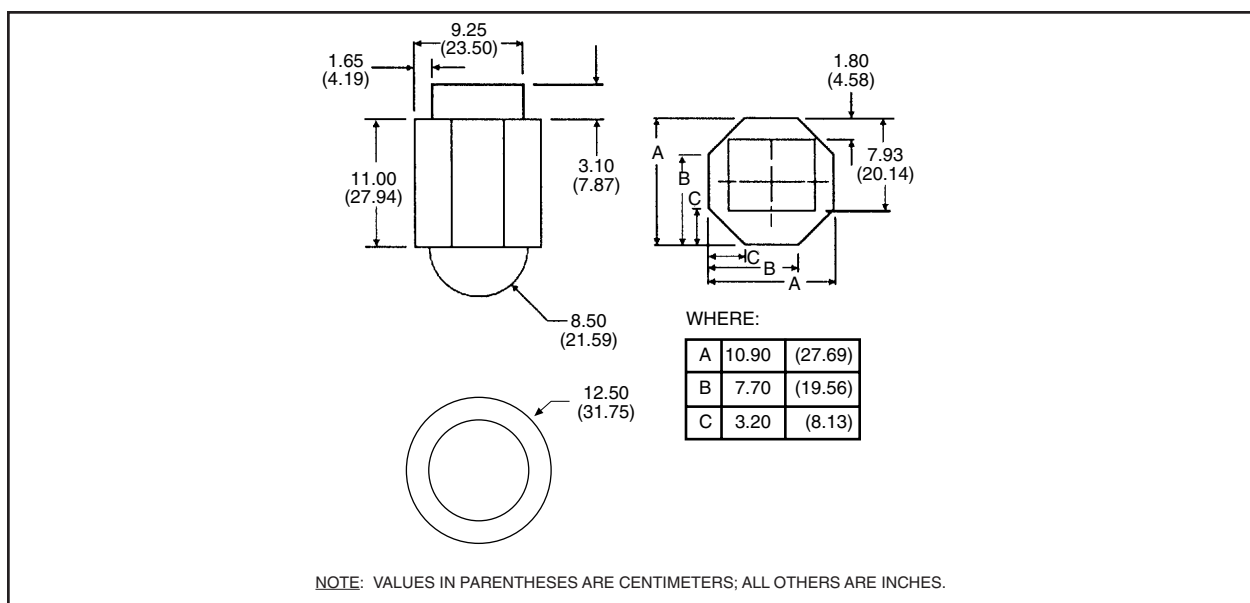
Figure 8. SB19 Dimension Drawing

12.0 WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one year after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number

2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number

3. Details of the defect or problem If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

> Service Department
> Pelco
> 3500 Pelco Way
> Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

> Pelco
> 3500 Pelco Way
> Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

> Pelco c/o Expeditors
> 473 Eccles Avenue
> South San Francisco, CA 94080 USA
> Phone: 650-737-1700
> Fax: 650-737-0933

This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.